

CLAIMS

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2 1. A method for compensating the impact of at least one defective pixel with a known
3 position in at least one spatial light modulator (SLM) when creating a pattern of said at
4 least one SLM on a work piece covered at least partly with a layer sensitive to
5 electromagnetic radiation, comprising the actions of:
6 - projecting an image of said at least one SLM on a detector arrangement to
7 measure a dose of radiation; and
8 - performing a compensation of said defective pixel by at least one of the most
9 adjacent pixels in said at least one SLM.
- 1 2. The method according to claim 1, wherein said compensation is performed by assigning
2 each of said at least one of the most adjacent pixels by a value given by subtraction of an
3 intended pixel value by a actual pixel value, divided by the number of most adjacent
4 pixels used for compensation.
- 1 3. A method for compensating the impact of at least one defective pixel in at least one
2 spatial light modulator (SLM) having a plurality of modulating elements (pixels) when
3 creating a pattern of said at least one SLM on a work piece covered at least partly with a
4 layer sensitive to electromagnetic radiation, comprising the actions of:
5 - illuminating by a radiation source said at least one SLM;
6 - identifying a position of the defective pixel; and
7 - performing a compensation of said defective pixel by at least one of the most
8 adjacent pixels in said at least one SLM.
- 1 4. The method according to claim 3, wherein said compensation is performed by assigning
2 each of said at least one of the most adjacent pixels by a value given by subtraction of an
3 intended pixel value by a actual pixel value, divided by the number of most adjacent
4 pixels used for compensation.
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1 5. The method according to claim 3, further including projecting an image of said at least
2 one SLM on a detector arrangement to measure a dose of radiation from the defective
3 pixel.

1 6. The method according to claim 3, wherein identifying the position of the defective pixel
2 includes projecting an image of said at least one SLM on a detector arrangement to
3 measure a dose of radiation.

1 7. The method according to claim 3, wherein identifying the position of the defective pixel
2 includes mapping the at least one SLM to a detector arrangement and then projecting an
3 image of said at least one SLM on the detector arrangement to measure a dose of
4 radiation.

1 8. The method according to claim 3, wherein identifying the position of the defective pixel
2 includes:
3 - mapping the at least one SLM to a detector arrangement by repeatedly projecting
4 clusters of pixels onto the detector arrangement; and
5 - projecting an image from said at least one SLM onto the detector arrangement to
6 measure a dose of radiation, using the mapping.

1 9. The method according to claim 8, wherein the detector arrangement does not optically
2 resolve a projected image of a single pixel.
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